

**United States of America  
FEDERAL COMMUNICATIONS COMMISSION  
EXPERIMENTAL  
RADIO STATION CONSTRUCTION PERMIT  
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

WO2XTQ

(Call Sign)

XD MO

(Class of Station)

0358-EX-CN-2024

(File Number)

NAME Lunasonde, Inc.

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(j) of the Commission's Rules

Station Locations

(1) MOBILE: NONGEOSTATIONARY. NGSO 500 km (97.4 deg)

Frequency Information

MOBILE: NONGEOSTATIONARY. NGSO 500 km (97.4 deg)

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
400.5 MHz	MO	19K2G1D	460 mW (ERP)	
401.5 MHz	MO	19K2G1D	460 mW (ERP)	

Special Conditions:

(1) Prior to equipment authorization or a determination of compliance, the device must be accompanied by a conspicuous notice worded as follows: "This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained."

This authorization effective June 13, 2024 and  
will expire 3:00 A.M. EST June 01, 2026

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



**Special Conditions:**

- (2) Upon receipt of a conjunction warning from the JSpOC or other source, the licensee must review the warning and take all possible steps to assess and, if necessary, to mitigate collision risk, including, but not limited to: contacting the operator of any active spacecraft involved in such warning; sharing ephemeris data and other appropriate operational information with any such operator; modifying spacecraft attitude and/or operations.
- (3) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (4) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (5) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (6) Following launch of the satellite, the licensee must notify the FCC through electronic submission to the license file, of the status of the satellite (transmissions commenced, etc.), not later than 7 days after commencement or expected commencement of transmissions, and of termination of transmissions, not later than three months after such termination.
- (7) Limit 401.5 MHz downlink to Unst, UK earth station to a 20% transmit duty cycle.
- (8) POINT OF COMMUNICATION: Phoenix CUBESAT.
- (9) UHF downlink (space-to-Earth) operations shall be strictly limited to durations when the Phoenix CubeSat is visible to one of the earth station locations listed below:
  - a. Vimercate, Italy
  - b. Lomazzo, Italy
  - c. Plana, Bulgaria
  - d. Unst, UK
  - e. Puertollano, Spain
- (10) Lunasonde, Inc. shall coordinate the addition of any earth station location not specifically identified in Condition 9 (including earth station locations outside the US&P) with the NTIA and federal agencies prior to submitting regulatory applications for operation.
- (11) Lunasonde, Inc. shall submit the appropriate Advance Publication Information (API) to the ITU Radiocommunications Bureau (BR) prior to operations of the Phoenix CubeSat, and transmissions from foreign earth stations to the Phoenix CubeSat shall obtain the appropriate regulatory approvals from the respective foreign administrations prior to operations.